

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please cancel claim 1, amend claims 2-20, and add new claim 21 as follows:

1. (canceled)
2. (currently amended): The system as in claim ~~1~~21 further comprising:
a far-end noise level estimator which receives the far-end signal and generates a far-end noise level estimate based on the far-end signal; and
wherein the first noise adaptive compander further comprises an expander gain control unit for adaptively expanding the far-end signal, wherein whereby the first noise adaptive compander section is further operates adapted to reduce adjust the amplification of low level far-end noise based on a the far-end noise level estimate.
3. (currently amended): The system as in claim ~~1~~21 wherein the first noise adaptive compander section is further adapted operates to vary a the far-end signal compression range onset point based on a total gain derived from the near-end noise level estimate and a far-end speech level of the far-end signal.
4. (currently amended): The system as in claim ~~1~~21 wherein the first noise adaptive compander further comprising comprises:
a noise level threshold value; and

a first noise adaptive gain controller (NGC) gain unit adapted to vary the a far-end signal gain based on a ratio of compensation gain increase per the near-end noise level estimate increase and the noise level threshold value.

5. (currently amended): The system as in claim 1-21 wherein the first noise adaptive compander further comprising comprises:

a noise level threshold value; and

a first noise adaptive gain controller (NGC) gain unit adapted to vary the a far-end signal gain based on a ratio of compensation gain increase per the near-end noise level estimate increase based on the near-end noise level estimate and the noise level threshold value, wherein the far-end signal gain is between a minimum gain and a maximum gain.

6. (currently amended): The system as in claim 1-21 further comprising:

a far-end noise level estimator receiving the far-end signal and generating a far-end noise level estimate based on the far-end signal; and

a second noise adaptive compander comprising:

a first input for receiving the near-end signal;

a second input for receiving the far-end noise level estimate;

a first output for providing a far-end output signal; and

section adapted to amplify a near-end signal based on a far-end noise level estimate
a compressor gain control unit, wherein the second noise adaptive compander receives the near-end signal at the first input and receives the far-end noise level estimate at the second input, the compressor gain control unit adaptively adjusting a near-end signal

compression range based on the far-end noise level estimate to adaptively compress the near-end signal to compensate for noise, whereby the second noise-adaptive compander operates to adjustably amplify the near-end signal based upon the far-end noise level estimate to produce the far-end output signal at the first output.

7. (currently amended): The system as in claim 6 wherein the second noise adaptive compander section is further comprises an expander gain control unit for adaptively expanding the near-end signal, and further adapted operates to reduce adjust the amplification of low-level near-end noise based on the near-end noise level estimate.

8. (currently amended): The system as in claim 6 wherein the second noise adaptive compander section is further adapted operates to vary a the near-end signal compression range onset point based on a total gain derived from the far-end noise level estimate and a near-end speech level of the near-end signal.

9. (currently amended): The system as in claim 6 wherein the second noise adaptive compander further comprising comprises:

a noise level threshold value; and

a second noise adaptive gain controller (NGC) gain unit adapted to vary the a near-end signal gain based on a ratio of compensation gain increase per the far-end noise level estimate increase and the noise level threshold value.

10. (currently amended): The system as in claim 6 wherein the second noise adaptive compander further comprising comprises:

a noise level threshold value; and

a ~~second~~ noise adaptive gain controller (NGC) gain unit adapted to vary the a near-end signal gain based on a ratio of ~~compensation gain increase per the~~ far-end noise level estimate ~~increase based on the far-end noise level estimate~~ and the noise level threshold value, wherein the near-end signal gain is between a minimum gain and a maximum gain.

11. (currently amended): A method of compensating for noise ~~in a compander~~ comprising:

receiving a near-end noise level estimate of a near-end signal in a compander;
receiving a far-end signal in the compander, the far-end signal to be adaptively amplified to compensate for noise;
adjusting a far-end signal compression range of the compander based on the near-end noise level estimate; and
amplifying a far-end signal in the far-end signal compression range~~based on a near-end noise level estimate.~~

12. (currently amended): The method as in claim 11 further comprising:
receiving a far-end noise level estimate of the far-end signal;
adjusting a far-end signal expansion range of the compander based on the far-end noise level estimate; and
~~reducing~~ varying the amplification of low level far-end noise in the far-end signal expansion range based on ~~a~~ the far-end noise level estimate.

13. (currently amended): The method as in claim 11 further comprising varying ~~a~~ the far-end signal compression range onset point based on a total gain derived from the near-end noise level estimate and a far-end speech level of the far-end signal.

14. (currently amended): The method as in claim 11 further comprising:
setting a first noise threshold value; and
varying the a far-end signal gain based on ratio of compensation gain increase per the
near-end noise increase level estimate and the first noise level threshold value.

15. (currently amended): The method as in claim 11 further comprising:
setting a first noise threshold value; and
varying the a far-end signal gain based on ratio of compensation gain increase per the
near-end noise level estimate increase based on the near-end noise level estimate and the first
noise level threshold value, wherein the far-end signal gain is between a minimum gain and a
maximum gain.

16. (currently amended): The method as in claim 11 further comprising:
receiving a far-end noise level estimate of a far-end signal in the compander;
receiving the near-end signal in the compander, the near-end signal to be noise adaptively
amplified to compensate for noise;
adjusting a near-end signal compression range of the compander based on the far-end
noise level estimate; and
amplifying a near end signal in the near-end signal compression range based on a far-end
noise level estimate.

17. (currently amended): The method as in claim 16 further comprising:
adjusting a near-end signal expansion range of the compander based on the near-end
noise level estimate; and

reducing ~~varying~~ the amplification of low-level near-end noise in the near-end signal
expansion range based on a ~~the~~ near-end noise level estimate.

18. (currently amended): The method as in claim 16 further comprising ~~varying a~~ the
near-end signal compression range ~~onset point~~ based on a total gain derived from the far-end
noise level estimate and near-end speech level of the near-end signal.

19. (currently amended): The method as in claim 16 further comprising:
setting a second noise threshold value; and
varying ~~the a~~ a near-end signal gain based on ~~ratio of compensation gain increase per the~~
far-end noise ~~increase~~ level estimate and the second noise level threshold value.

20. (currently amended): The method as in claim ~~14~~ 16 further comprising:
setting a second noise threshold value; and
varying ~~the a~~ a near-end signal gain based on ~~ratio of compensation gain increase per the~~
far-end noise level estimate ~~increase based on the far-end noise level estimate~~ and the second
noise level threshold, wherein the near-end signal gain is between a minimum gain and a
maximum gain.

21. (new): A system for noise compensation comprising:
a near-end noise level estimator receiving a near-end signal and generating a
near-end noise level estimate based on the near-end signal; and

a first noise adaptive compander comprising:

a first input for receiving a far-end signal;

a second input for receiving the near-end noise level estimate;

a first output for producing a near-end noise compensated output signal;

and

a compressor gain control unit, wherein the first noise adaptive compander receives the far-end signal at the first input and receives the near-end noise level estimate at the second input, the compressor gain control unit adaptively adjusts a far-end signal compression range based on the near-end noise level estimate to adaptively compress the far-end signal to compensate for noise, whereby the first noise-adaptive compander operates to adjustably amplify the far-end signal based upon the near-end noise level estimate to produce the near-end noise compensated output signal at the first output.